

## REMARKS

Reconsideration of this application, as amended, is respectfully requested.

This application has been reviewed in light of the Office Action dated May 14, 2004. Claims 1-2, 4-5, 7-8 and 11 are currently pending. As indicated above, Claim 9 has been cancelled without prejudice. It is gratefully acknowledged that the Examiner has allowed Claims 1, 2, 4, and 5.

In the Office Action, the Examiner has now rejected Claims 7-9 and 11 under 35 U.S.C. § 103(a) as being unpatentable over *Odenwalder et al.* (U.S. 6,173,007).

As stated above, the Examiner has rejected independent Claim 7 under 35 U.S.C. § 103(a) as being unpatentable over *Odenwalder*. However, in the rejection, it is respectfully submitted that the Examiner has again misapplied the art. Claim 7 reads as follows:

7. (Previously Presented) A channel spreading method in a CDMA (Code Division Multiple Access) communication system comprising the steps of:

- generating a first pair of symbols to duplicate an input;
- generating a second pair of symbols to create a complementary symbol of the input symbol;
- spreading the first pair of symbols by a quasi-orthogonal code in order to transmit the spread first pair of symbols through a first antenna; and

- spreading the second pair of symbols by a quasi-orthogonal code in order to transmit the spread second pair of symbols through a second antenna;

- wherein one of the first pair of symbols is spread by a portion of the quasi-orthogonal code and other of the first pair of symbols is spread by the remaining portion of the quasi-orthogonal code.

In rejecting Claim 7, the Examiner has cited the spreading codes  $PN_I$  and  $PN_Q$  of *Odenwalder* as being an equivalent of a portion of a quasi-orthogonal code and a remaining portion

of the quasi-orthogonal code, respectively. However, column 2, lines 53-57 of *Odenwalder* clearly recites that  $PN_I$  is an in-phase PN spreading code and  $PN_Q$  is a quadrature phase PN spreading code. Accordingly, it is clear that  $PN_I$  and  $PN_Q$  cannot be an equivalent of a portion of a quasi-orthogonal code and a remaining portion of the quasi-orthogonal code, i.e.,  $PN_I$  and  $PN_Q$  are two separate spreading codes. Therefore, it is respectfully submitted that the Examiner is incorrect, as *Odenwalder* clearly does not disclose one of the first pair of symbols being spread by a portion of a quasi-orthogonal code and other of the first pair of symbols being spread by a remaining portion of the quasi-orthogonal code.


Further, in Claim 7 the first pair of symbols is spread by a quasi-orthogonal code, and the second pair of symbols is spread by another quasi-orthogonal code. However, in *Odenwalder*, each symbol of the alleged first pair of symbols is spread by a different quasi-orthogonal code, and each symbol of the alleged second pair of symbols is spread by a different quasi-orthogonal code. That is, Claim 7 teaches spreading two symbols using one orthogonal code, which is not disclosed in *Odenwalder*. Therefore, it is respectfully submitted that the Examiner is again incorrect.

Accordingly, for at least the reasons indicated above, it is respectfully submitted that the Examiner is incorrect in rejecting Claim 7 as being unpatentable over *Odenwalder*, and it is respectfully requested that the rejection of Claim 7 be withdrawn.

Accordingly, it is respectfully submitted that Claims 1, 4, and 7 are in condition for allowance, and at least because of their dependence upon these claims, dependent Claims 2, 5, 8, and 11 are also in condition for allowance. As indicated above, Claim 9 has been cancelled without prejudice.

In view of the preceding amendments and remarks, it is respectfully submitted that all pending claims, namely Claims 1-2, 4-5, 7-8, and 11, are in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul J. Farrell", written over a horizontal line.

Paul J. Farrell  
Reg. No. 33,494  
Attorney for Applicant(s)

**DILWORTH & BARRESE, LLP**

333 Earle Ovington Blvd.  
Uniondale, New York 11553  
Tel: (516) 228-8484  
Fax: (516) 228-8516

PJF/DMO/lah